



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: GENx-1B67/P1 BYPASS RATIO: 8.9  
 UNIQUE ID NUMBER: 12GE151 PRESSURE RATIO ( $\pi_{00}$ ): 41.9  
 COMBUSTOR: TAPS  
 ENGINE TYPE: TF RATED THRUST ( $F_{00}$ ) (kN): 308.7

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	1.0	27.1	38.5	9.8
AS % OF ORIGINAL LIMIT	5.3	23.0	31.1	56.4
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			38.8	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			42.4	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			46.5	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			52.0	

### DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 - REVISED (SEE REMARKS)

### TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
 x DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 x OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	2.380	0.02	0.18	29.34	0.0
CLIMB OUT	85	2.2	1.954	0.02	0.29	17.04	0.0
APPROACH	30	4.0	0.639	0.06	2.68	9.39	5.0
IDLE	7	26.0	0.214	0.58	18.94	4.43	0.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			845	208	6821	10244	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				0.7	22.1	33.2	7.6
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.0	0.4	0.2	2.1
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.65-0.72	21.69-22.54	32.96-3.33	5.26-8.96

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT All POWER SETTINGS  
 STAGE BLEED 0 (% CORE FLOW) AT All POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.4-98.6
TEMPERATURE (K)	280.5-299
ABS HUMIDITY (kg/kg)	0.00345-0.00716

### FUEL

SPEC	Jet A
H/C	1.89
AROM (%)	15.3

MANUFACTURER: General Electric Company  
 TEST ORGANIZATION: General Electric Company  
 TEST LOCATION: PTO, Ohio  
 TEST DATES: 29/09/2009-03/10/2009

### NO<sub>x</sub> REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

### REMARKS

1. Ref. GE REPORT R2010AE595
2. Engine S/N 956-108/2
3. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
4. NO<sub>x</sub> levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)